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ABSTRACT

This paper presents biographical information about Mary Wollstonecraft (1759-1797), focusing especially on her education. The paper begins with an overview of the status of women's education, or lack of it, in 18th century England. It then describes Wollstonecraft's reaction to Jean Jacques Rousseau's views on women's education and the influence of the Ardens, a family of professional teachers, on Wollstonecraft's future work in education. (Contains 51 references.) (BT)

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Young Mary Wollstonecraft's Schooling and Its Influence on Her Future Pioneering Agenda for the Rational Education of Women.

by Leonard H. Roberts

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Young Mary Wollstonecraft's Schooling and its Influence on Her Future Pioneering Agenda for the Rational Education of Women

During her short lifetime (1759-1797), Mary Wollstonecraft, the pioneer feminist, author and educator, spent her later childhood and early adolescence, from the ages of nine to sixteen, living with her family in the town of Beverley, Yorkshire, some two hundred miles north of London. These formative years, so important to Mary's social and intellectual development, have only briefly been addressed by historians. Evidence suggests, however, that her life experiences in Beverley helped play an important role in forming the mature woman. Her Beverley years bear out Alexander Pope's piquant observation (paraphrased) that "The child is the mother of Woman."

During this period, Mary Wollstonecraft received little, if any formal schooling or career training as we know it today. Her future husband, the noted radical author William Godwin, wrote in his biography of her life that during Mary's childhood she attended a Beverley day-school. Unfortunately, neither he or Mary left any account of such a school or what she might have studied there.

By the time Mary matured she had acquired a knowledge of arithmetic, literature, science, history and eventually, the rudiments of French and several other languages. In her later working years, however, she was criticized for an awkward writing style and a weakness in grammar and spelling that may have been indicative of her early schooling or the lack of it. Nevertheless, Wollstonecraft's published work, in spite of flaws, contains many keen insights into the inferior social, political and economic condition of women in eighteenth century England. Mary's broad knowledge and reasoned proposals for educational reform and for amending those wrongs to her sex, as described in her major work: A Vindication of the Rights of Woman (1792), suggests that Mary Wollstonecraft's education might not have been as meager as once thought.

Unfortunately there are difficulties in reconstructing the depth and scope of Wollstonecraft's early education. In the eighteenth century formal learning was regarded as a wholly private matter determined by a child's parents or guardians rather than by the state. Records, if any, were kept at the whim of the particular educational provider. We can only surmise what Mary's early schooling encompassed from a survey of her few surviving letters and observations made at a later date.

The limited data from Mary's Beverley days suggests her early schooling included lessons with a neighboring family of professional educators. During these formative years she also learned at home bitter lessons about the unequal role of women in eighteenth century England. These factors, coupled with the stimulus of the Enlightenment and the social upheaval from England's Industrial Revolution, helped shape the adult woman.

THE STATUS OF WOMEN IN EIGHTEENTH CENTURY ENGLAND

A modest amount of formal schooling for women, emphasizing social deportment and menial activities, such as sewing and water color painting rather than the development of any cognitive skills, was a common practice in eighteenth century England. Mary Wollstonecraft observed that

> ... in the education of women, the cultivation of the understanding is always subordinate to the acquirement of some corporeal accomplishment.... Besides, in youth, their faculties are not brought forward by emulation; and having no serious scientific study, if they have natural sagacity, it is turned too soon to life and manners. They dwell on effects and modifications, without drawing them back to causes; and complicated rules to adjust behavior are a weak substitute for simple principles.[1]

According to Wollstonecraft, overcoming such deficencies was possible if women were afforded the same rational education as men. Such an education, she believed, should be built on

strengthening a woman's intellectual faculties, particularly by emphasizing the skills of logical reasoning and abstract thinking through the mastery of such subjects as mathematics, science, history, literature and languages.[2] Unfortunately, most men (and women) in eighteenth century England regarded a woman's cognitive capabilities as innately inferior. Mary's acceptance of Jean Jacque Rousseau's views on education was tempered by Rousseau's assertion "that man and woman are not, nor ought to be, constituted alike in temperment and character, it follows, of course, that they should not be educated in the same manner."[3] As a result of such male judgments, according to Wollstonecraft, "women...receive only a disorderly kind of education, seldom...with the degree of exactness that men, who from their infancy...observe."[4]

What limited educational opportunities for women existed coincided with a dearth of any legitimate employment. Respectable women were not expected to venture beyond a very narrowly defined range of activities outside the small circle of family and friends. Married and unmarried middle-class women were expected to engage in only a few socially approved wage earning positions such as shopkeepers, governesses, school teachers (although there were no teacher training institutions at the time), and, in a few cases, writers of novels or childrens' books.

Even when pursuing amusements and recreations, women were expected to conform to the prevailing standards of masculine imposed propriety regardless of their rank. It was observed that: "Princess Amelia Sophia, daughter of King George II (1711-1786) whose passionate love of hunting led her to adopt masculine costume when on horseback, seems to have aroused doubt in many minds whether Amazonian qualities were compatible with female decorum...."[5]

The Industrial Revolution, however, forced a redefinition of women's social and economic status when many of them abandoned their traditional child-rearing roles and joined the growing factory labor force at generally lower wages than men. Much of women's work in mines, mills and shops, like their previous

menial labors as milkmaids or servants, required only a minimum amount of learning skills.

As children, many of these working class women had attended Sunday Schools, Charity or Blue Coat Schools, founded by various organizations, such as The Society for the Promotion of Christian Knowledge. In such institutions "poor girls" were instructed in a "Christian and Useful Education of the Poor, Necessary for their Piety, Virtue and Livelihood."[6] Instructional "Orders" for one Charity School, in 1711, taught "the girls learn to read, &c. and generally to knit their stockings and gloves; to Mark, Sew, Make and Mend their Cloaths (sic.): and several learn to Write and some Spin their Cloaths."[7]

Such a threadbare education for girls was not limited only to the daughters of the poor. According to an advertisement in the Leeds Mercury (6 March 1739),the daughters of the gentry could attend a "Boarding School for Young Ladies" where "...all sorts of Needlework, and Patterns Drawn on Cloth or Canvas after the newest fashion, likewise Paistry (sic.), Huswifry, Pickling, and Sweetmeats, will be carefully taught as usual, at their School over against the Vicarage in Leeds, by the abovesaid Teachers."[8] It is not suprising that Wollstonecraft regarded "the education which women now receive scarcely deserves the name."[9]

For some upper-class women, private tutors and "female academies" polished their manners and added a smattering of French in their quest for aristocratic vocabularies. They were taught, according to Wollstonecraft, "from infancy that beauty is a woman's sceptre, the mind shapes itself to the body and roaming around its gilt cage, only seeks to adore its prison."[10] In Catherine Macaulay's case (1731-1791), the highly acclaimed historian and advocate of women's rights, largely taught herself by roaming through her father's extensive library. "He paid no attention to the education of his daughters, who were left at the family seat, at Olantigh, to the charge of an antiquated, well-recommended, but ignorant governess, ill-qualified for the task she undertook."[11]

For women condemned to the bottom of the social hierarchy by the new economic order the alternatives were, in a limited number of cases, kept mistresses to the wealthy and powerful or, for women with no skills or resources to fall back on, prostitutes to the poorer classes. Those who had fallen into this degraded state were regarded as women of weak moral character who had chosen their lifestyle rather than being driven into it by ignorance, poverty, broken homes or lack of more refined employments elsewhere. One contemporary social commentator observed that they "are mostly composed of women who have been in a state of menial servitude, and of whom not a few, from the love of idleness and dress, WITH THE MISFORTUNE OF GOOD LOOKS (sic.), have partly from inclination...resorted to prostitution as a livelihood."[12]

Women of all social classes shared in the hope for a well-connected marriage as a haven and source of happiness and security for themselves and their children. To achieve this they were encouraged to study those amenities that would attract and please a husband and help in proper child rearing. By the inculcation of useful skills and habits at home and the teaching of morally uplifting scripture in church, parents and religious authorities collaborated together to establish and reinforce a woman's place in the social order. This was done, primarily by emphasizing her need for obeying the Will of the Heavenly Father and his representative institutions on earth: church, crown, marriage and family. In A Vindication of the Rights of Woman, Mary Wollstonecraft pointed out that a key source of her countrymen's views on gender were derived from "Moses poetical story...from remotest antiquity, (which) found it convenient...to subjugate his companion, and his invention that she ought to have her neck bent under the yoke, because the whole creation was only created for his convenience and pleasure."[13]

It is not suprising that such social conditioning resulted in women of all social classes passively accepting their exclusion from the clergy, law and medicine, or not questioning

why the commercial and craft guilds and the educational institutions such as the Grammar Schools, Public Schools (Eton, Harrow, Rugby, etc.), as well as Cambridge and Oxford Universities, were closed to them.

Such attitudes were supported by laws condemning women as, essentially, chattels. Wollstonecraft noted that "the laws respecting women...make an absurd unit of a man and his wife; and then, by the easy transition of only considering him as responsible, she is reduced to a mere cipher."[14] Accordng to the renowned English jurist of the time, Sir William Blackstone: "Husband and wife are one person in the law; that is, the very being or legal existance of the woman is suspended during marriage...."[15] For centuries English Common Law mandated that whatever property a woman inherited became the property of her husband, leading to the multiplication of many Hogarthian scoundrels throughout the land and at all social levels. Such was the food for many a contemporary novel.

Under the ancient laws of primogeniture, parental wealth fell to the eldest son of the family. Or, as Wollstonecraft dramatically described it: "The younger children have been sacrificed to the eldest son; sent into exile or confined in convents, that they might not encroach on what was called, with shameful falsehood, the family estate."[16] Thus, in "Merry Old England," women were not only hobbled by their precarious social status and financial vulnerability, but they were denied by law and masculine authority any opportunity to pursue a meaningful education that might lead to independence through a rewarding and distinguished livelihood. "What," asked Mary Wollstonecraft, "have women to do in society?" "...but to loiter with easy grace; surely you would not condemn them all to suckle fools and chronicle small beer! "No." "...How many women thus waste life away the prey of discontent, who might have practiced as physicians, regulated a farm, managed a shop, and stood erect, supported by their own industry...if they were educated in a more orderly manner... which might save many from common and legal prostitution."[17]

MARY WOLLSTONECRAFT'S FAMILY BACKGROUND

Mary Wollstonecraft was luckier than most women born in the midst of England's gilded Georgian Age. From all accounts her family was solidly rooted in London's prosperous merchant class and loyal to the Church of England. Mary's father, Edward John, born in 1737 (?), was the eldest surviving son of a successful master silk weaver from the Spitalfields working-class section of East London who specialized in the production and marketing of silk hankerchiefs. Primarily due to its elegance and expense, finished silk cloth was particularly appealing to the upper classes. Silk weaving production, however, was a somewhat risky but generally profitable business in spite of the fickleness of changing fashions, and a dependence on foreign sources for raw silk. Although factory machinery for "throwing" raw silk into thread was available, silk production in Spitalfields was primarily a cottage industry made profitable by the profusion of cheap Irish immigrant labor working and living under conditions that, from time to time, led to violent social unrest.[18]

Mary Wollstonecraft's grandfather, of Irish descent, proved to be an astute businessman who was able to accumulate a considerable amount of capital. Upon his death, in 1765, Mary's father, Edward John, inherited a major share of his estate. The legacy included ten thousand pounds sterling and a block of London income producing property; a sufficient amount of wealth for assuring the family's future financial security, if prudently handled.

Mary's father had served the usual seven years as an apprentice in the family business, from approximately the ages of thirteen to about twenty, a common practice for passing on the trade to the next generation. In the year prior to completing his apprenticeship in 1757, Edward John married young Elizabeth Dickson "of good family" originally from the Atlantic seaport town of Ballyshannon, Ireland, where her family were "supposed

to have been engaged in the wine trade."[19] in that same year, Mary's eldest brother, Edward, known afterwards as "Ned", was born, followed by the birth of Mary, in London, on April 27, 1759, the year prior to the accession of King George III to the English throne.[20]

The king's long reign (1760-1820) would become identified with a socially volatile but generally auspicious and expansive era in English history in spite of failures, such as the loss of the American colonies. The year 1763, when Mary Wollstonecraft was four years of age, marked the end of the Seven Years War in which England, by the Treaty of Paris, emerged in command of a worldwide colonial empire and a leader in trade and commerce. The reestablishment of foreign trade, following the end of hostilities, however, resulted in an economic decline of the English silk industry from increased international competition. Such unfavorable business conditions may have encouraged Mary's father to leave the family trade and instead, pursue the life of a gentleman farmer, near London. This was not particularly unusual. As one social historian observed: "Many of the older gentry had been displaced by nouveaux-riches who aspired to leave the plebeian purlieus of Cheapside and Billingsgate for the more refined air of a not-to-distant countryside."[21] Edward John may have concluded that the accumulation and profitable cultivation of land would not only provide him and his growing family with sufficient income but also offer them the enhanced social class distinctions of the landed gentry. Landed wealth was still regarded in England as more socially acceptable than the acquisition of any crass profits obtained from commercial or industrial toil.

Farming in the eighteenth century, however, was in the midst of an agricultural revolution largely brought about by land enclosure and by new scientific and technological innovations. The use of crop rotation, increased soil and seed productivity methods and selective livestock breeding required specialized knowledge and dedication in order to be successful in an occupation challenged by drought, disease and market

fluctuations. There is no evidence that Edward John Wollstonecraft met any of the qualifications required to assure success in such a venture.[22]

By 1765, Mary's father had failed in the first two attempts at his farming enterprise in and near Epping Forest, just north of London. In that same year he moved his family to the town of Barking, east of London. Over the next few years the family would continue to grow, with the birth of Henry Woodstock in 1761, Elizabeth (Eliza), in 1763, Everina, in 1765, James, in 1768, and Charles, in 1770. While at Barking, the local tax rate records indicated the Wollstonecrafts were still financially comfortable and living in a "convenient house" near the socially prominent Gasgoyne family, one of whom "was a member of Parliament for several boroughs."[23]

THE FORMATIVE YEARS IN BEVERLEY

In September of 1768, when Mary Wollstonecraft reached the age of nine her family moved once again, this time to the Yorkshire hamlet of Walkington in northern England, close by the town of Beverley. About three years later, the Wollstonecrafts finally settled in the comfortable Eastgate section of Beverley itself, surrounded by the natural beauty of the Yorkshire countryside that would inspire Mary's love of nature later reflected in the stories she wrote for children.

Edward John Wollstonecraft was probably attracted to Beverley because land might be purchased at a lesser price than similar property near London. The community served as an important hub of a highly productive industrial and agricultural region. In west Yorkshire the great industrial cities of Sheffield, Manchester and Leeds were sprouting up where in one's lifetime farms and forests had once covered the land. In Yorkshire's eastern parts, according to one observer, "the quantity of corn transferred at Beverley market is usually prodigious, standing as the town does, in the midst of an extensive corn country, and possessing facilities for communication with every part

of the Kingdom...."[24] Most of Beverley's produce was delivered to the close-by seaport of Kingston-Upon-Hull, some seven miles to the south. The city of Hull, located on the Humber river and estuary leading to the North Sea, has served as a major shipping port for Yorkshire's foodstuffs and raw wool to the rest of England and the Continent since the Middle-Ages.

Historically, this provincial mercantile center served various shipping interests, produced fine furniture and supported a number of other crafts and professions. It proudly indulged the Muses through its Restoration poet, Andrew Marvell. During the English Civil War the city closed its gates and defended itself against a Cavalier army supporting King Charles I. In 1759, William Wilberforce was born at Hull. Wilberforce became a leading slave abolitionist and parliamentarian who "succeeded in arousing the conscience of the British people to stop the slave trade in 1807...."[25]

In this stimulating environment Mary Wollstonecraft, during her six years at Beverley, matured into a precocious and lively adolescent helping her mother raise her other brothers and sisters. In the surrounding forests, fields and meadows of Mary's "darling" Westwood a girl of her age and sensibilities could find an outlet for the high spirits of youth and an escape from the increasing gloominess of an unhappy home life. In Wollstonecraft's future writings on education she would emphasize the importance of physical activity and play for childrens' mental and physical health.[26]

At home, Mary's life was being overshadowed by signs of the family's ultimate disintegration. As her father's quixotic obsession to achieve the status of a country gentleman eluded him, his excessive drinking and bullying of his wife and children was becoming a serious problem. "It is almost needless to tell you that my father's violent temper and extravagant turn of mind was the principal cause of my unhappiness and that of the rest of my family,"[27] Mary confided, years later, to her friend, Jane Arden. Willaim Godwin noted that "the conduct he pursued towards members of his own family was one of the same kind as

that he observed towards animals. He was for the most part extravagantly fond of them; but when he was displeased, and this very frequently happened and for very trivial reasons, his anger was alarming."[28]

Beverley and surrounding Yorkshire, over the centuries had witnessed the coming and going of the ancient Celtic Parisii, the Romans, the Anglo-Saxons, the Danes and the Normans. At the height of its influence in the eighth century, the Archbishopric of York, some thirty miles north west of Beverley, rivaled Canterbury. At the invitation of Charlemagne, Alcuin of York (735-804) left his post at York's illustious cathedral school and served on the Continent as education advisor to the Emperor. With Charlemagne's support Alcuin helped initiate the long educational process that would lead to the ending of the Dark Ages.[29] A northern Yorkshireman, John Wycliffe (1320-1384) the Oxford professor and priest who helped supervise the translation of the Bible into English, presaged the Reformation by "open(ing) a vista for reason by attacking some of the most pernicious tenets of the church of Rome...."[30] Far ahead of his time, Wycliffe declared that England should end its subordination to papal authority.

Since the Middle-Ages, the great Gothic Minster and major pilgrimage shrine of St. John of Beverley (miracle-maker and Archbishop of York, 705-716), along with the Wednesday and Saturday markets, had attracted a motley assortment of humanity from as far away as London, almost two hundred miles south. The town's numerous inns and public houses provided lively hospitality that could satisfy a wide range of tastes. For those inclined towards more refined pastimes the Georgian style Assembly Rooms provided an elegant setting for dances, entertainments and public lectures.[31]

Traditional festivals such as the Midsummer and November fairs were often enlivened by "rough sports" such as bull-baiting, cock-fighting and bare-fisted boxing matches topped off by a full card of horse racing.[32] Beverley also, at times, attracted traveling acting troupes to its playhouse. In 1773,

when she had just turned fifteen, Mary wrote her closest friend, Jane Arden, that she planned to attend Robert Hitchcock's light comedy The Macaroni, an eighteenth century farce about a young English dandy affected by Continental manners.[33]

Surviving examples of Mary's letters from her early adolesence display a talent for composing poetry and sharing girlish tattle with her Beverley friends. A stanza from one of her more serious poems suggests young Mary's moralizing nature was already emerging:

> I see the right, and I approve it too-
> I blame the wrong and yet the wrong pursue.
> -To you good gods I make my last appeal
> Or clear my virtues or my crimes reveal
> If in the maze of fate I blindly run
> And backward tread those paths I ought to shun
> Impute my errors to your own decree,
> My hands are guilty, but my heart is free.[34]

Her letters are laced with quotes and allusions drawn from English literature. Certainly she read much on her own, although a source of her knowledge and inspiration could have been the proximity of a local literary group, the "Driffield Bards", as Mary called them. The "Bards" included William Mason, a friend and biographer of the English poet, Thomas Gray.[35]

The limited schooling opportunities for girls in Mary's Beverley raises questions as to where Mary acquired her knowledge and wit like that shown in her thoughtful letters and clever repartees with her friends. Formal schooling in Beverley at the time, was primarily the responsibility of the ancient Grammar School for boys, grounded in a classical curriculum, suitable for acceptance into Cambridge or Oxford Universities but lacking any "modern" academic content. There was also a Charity school and its menial curriculum for boys and girls of impoverished families; a condition the Wollstonecrafts had not yet reached. Beverley probably had its share of Dame Schools, informally conducted in the home of a housewife with generally limited teaching competencies, but eager to add a few shillings to her

larder. As a child, Mary may have received her basic instruction from her mother or the Wollstonecraft maid-servant, a common practice in those days.[36] If Mary did attend a specific "Day-School" in Beverley, she left no record of it.

Another source of Mary's informal schooling was more likely through friendship with her Eastgate neighbor, Jane Arden, whom Mary characterized in her letters as a fellow "schoolmate". Jane and Mary were approximately the same age and attended the same Anglican church together. Jane, like her faher, John Arden, her older brother, James, and younger sisters, Ann and Elizabeth, would all become professional educators, eventually conducting lectures and operating academies in Bath and Beverley. The oldest brother, John, chose a career in medicine. Mary was quick to learn from such a remarkable family, as she would later draw lessons from her future friends including Fanny Blood, the Reverend Doctor Richard Price and her publisher, Joseph Johnson.

Through her contact with the Ardens Mary learned about some of the remarkable scientific and technological advances of the Enlightenment by sharing in the rational studies John Arden conducted for his children. In response to an astronomy demonstration from Arden, Mary good-naturedly asked Jane to "pray tell the worthy Professor, next time he is obliging to give me a lesson on the globes, I hope I shall convince him I am quicker than his daughter at finding out a puzzle, tho' I can't equal her in solving a problem...."[37] Such attention from Arden led Mary to write his daughter that "I shall always think myself under an obligation for his politeness to me."[38]

After the Wollstonecrafts moved into Beverley's respectable Eastgate, sometime after 1768, Mary could observe Jane Arden's family firsthand, noting the stark contrast between John and Dorothy Arden's warm devotion to their children and her father's cruel treatment of his own family. Mary regarded the elder Arden with admiring deference, telling Jane that "I have not the advantage of a master as you have."[39] As exemplars, the Arden family would serve Mary well when, in later years, she addressed contoversial issues regarding education, gender and

family values.

During the time Mary knew "the Philosopher", John Arden was already an established and highly respected "Teacher of Experimental Philosophy," traveling and lecturing in the growing Midlands industrial cities such as Leeds, Birmingham, Sheffield, Manchester, Liverpool and the aristocratic resort city of Bath. At Bath, Arden demonstrated "Dr. Priestley's new experiments upon different kinds of air... in an elegant lecture room, fitted up for that purpose at his house on St. James Street."[40] Arden also advertised that "Young Ladies and Gentlemen (i.e. boys and girls) may be taught at home or at his house, Geography, the Elements of Astronomy, Use of the Globes and Maps-."[41] John Arden's familiarity with Joseph Priestley's chemical experiments reflects a keen intellectual knowledge of the latest discoveries in science. In 1770, Arden, along with many Fellows of the Royal Society, including Benjamin Franklin, subscribed to Priestley's publication on the history of experimental science.[42]

By the middle of the eighteenth century, the dramatic science presentations of popular traveling lecturers such as John Desaguliers, James Ferguson, Francis Hauksbee and William Whiston, all proponents of the "new" Newtonian physics, had become the rage in London and the provinces. From almost daily scientific and technological discoveries there was a growing public belief that the previously uncontrolled forces of nature might be ultimately harnessed for the benefit of humankind. Such a revelation aroused in all social classes a fascination with demonstrations of natural phenomena. Members of the aristocratic elite, such as John Stuart, the Third Earl of Bute, proudly displayed his cabinet of scientific instruments, "... considered one of the most complete in Europe,"[43] to personal friends and public alike.

The lecture-demonstrations and the supporting equipment in the science apparatus cabinets were intended to present a wide range of physical principles drawn from mechanics, astronomy, geography, hydrostatics, pneumatics, optics and electricity.

It was the electrical experiments that particularly caught the public imagination.[44] In 1752, under Buffon's supervision, one of Benjamin Franklin's electrical experiments was carried out in Paris, with electrifying results. Shortly thereafter, John Canton, a noted science lecturer repeated the experiment in London, and thereby helped earn Franklin membership in the Royal Academy.[45] Some years later, Mary Wollstonecraft's daughter, Mary Shelley, painted a less than sympathetic picture of electrical experimentation in her immortal: FRANKENSTEIN; OR THE MODERN PROMETHEUS.

John Arden was one of a number of popular science educators who were direct descendents of pioneer scientists noted for their public demonstrations of scientific discoveries and technological innovations. Some of these included Galileo, Robert Boyle, Christian Huygens and the Bernoullis. Professional science educators, like Arden, helped stimulate the creation of modern adult education, particularly among the industrialized working classes eager to master the new technical knowledge and skills.

John Arden began his teaching career as a young schoolmaster at Heath Academy near Wakefield, in West Yorkshire's industrial Midlands. He taught a range of subjects, including natural philosophy (physics). The academy was jointly established, about 1740, by John Gargrave, an astronomer and mathematician, educated by his schoolmaster uncle, and John Randall, "a well-known agriculturalist" and graduate of Cambridge University. The school boarded boys from approximately seven to fifteen years of age, offering them a "modern" curriculum emphasizing science and mathematics.[46]

In 1757, following the closing of the Academy, John Arden was engaged by William Constable (1721-1791), the squire of Burton Constable Hall, near Beverley, as a "demonstrator" of his static electricity apparatus. William Constable, like his father and half-brother, exemplified a new breed of enlightened aristocrat dedicated to the study of "natural" and "experimental philosophy" and the botanical sciences. In 1775, on the recommendation of the eminent naturalist, Sir Joseph Banks,

Constable was elected a Fellow of the Royal Society for his scientific contributions, including his pioneering work in helping establish modern Linnaean botanical taxonomy in England. At about this time, Constable and several other prominent Yorkshiremen, contributed funds to help underwrite Joseph Priestley's experimental research.[47]

By their loyalty to the Catholic faith, however, the wealthy Constables were barred from holding any public offices or attending English universities. As a result, William Constable completed his studies at the Catholic college in Douai, France, where he developed a special interest in science. After his graduation, Constable completed three "Grand Tours" of the Continent, meeting important figures of the Enlightenment, including on several occasions, Jean Jacques Rousseau. On his travels Constable collected science demonstration apparatus, geological specimens and zoological exhibits for display in his library, noted for its fine collection of scientific publications. The Squire also purchased rare botanical samples for cataloging and planting in his estate's extensive gardens.[48]

John Arden's experience in teaching physics using demonstration apparatus made him a versatile asset to Constable's staff. Arden helped supervise the purchase and construction of various scientific instruments by craftsmen in Beverley, Hull, York and London. He also constructed his own scientific apparatus, including an "electrical orrery" one of which he would later operate and explain to a fascinated young Mary Wollstonecraft. Arden's travels and growing expertise as a science lecturer-demonstrator led him, eventually, to strike out on his own, with great success.

In spite of his busy traveling lecture schedule, the former schoolmaster not finding Beverley's available schooling up to his standards, educated the Arden children at home. It was not lost on Mary that Jane Arden and her sisters were challenged with the same rational studies as their brothers. By the time Mary participated in some of the lessons with Jane and her sisters, the two older sons, John, Jr., and James were already

well prepared to move on to more advanced studies at St. George's Hospital in London and Oxford University.

In 1774, Mary Wollstonecraft's limited exposure to a rational education came to an abrupt end. Her father once more uprooted his family and their possessions, transporting them two hundred miles over rough country roads to Hoxton, a seedy suburb of London. For several more years, Mary would struggle with family entanglements before she could set out on her own troubled but independent path.

An early attempt by Mary to achieve independence through the establishment of a school at Newington Green, north London, in 1783, was probably inspired by the success of the Arden sisters' "New Academy of Female Education", opened at Bath, in 1781.[49] Although her own school eventually failed, the experience strengthened Mary's determination to seek out new opportunities for achieving her future independence.

In the ensuing years, members of the Arden family pursued their own successful careers. John Arden,Jr., became a prominent physician who eventually returned to Beverley and served as the town's mayor for a number of years. James followed in his father's footsteps as a science demonstrator-lecturer following his graduation from Oxford. The Arden sisters joined together and conducted successful academies of "Female Education" in Bath and Beverley for a number of years; in her later life, Jane wrote and published several elementary school textbooks.[50]

One of the lessons Mary Wollstonecraft learned from her close relationship with the Arden family was the initial understanding that women were capable of a rational education and that such an education could play a useful role in achieving their future independence. In her later writings she demanded that women be given the choice to study along with men the same curriculum that might assure them all a respectable living in economically rewarding professions and careers; this was at the core of Mary Wollstonecraft's social and educational agenda.

> It is plain from the history of all nations,
> that women cannot be confined to merely

domestic pursuits, for they will not perform family duties, unless their minds take a wider range, and whilst they are kept in ignorance they become in the same proportion the slaves of pleasure as they are the slaves of man. (A VINDICATION OF THE RIGHTS OF WOMAN, 1792)[51]

The Life and Times of Mary Wollstonecraft, The Formamative Years: 1759-1797

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